



BTEC Assignment Brief

Qualification	Pearson BTEC International Level 3 Subsidiary Diploma in Construction and the Built Environment Pearson BTEC International Level 3 Foundation Diploma in Construction and the Built Environment Pearson BTEC International Level 3 Diploma in Construction and the Built Environment Pearson BTEC International Level 3 Extended Diploma in Construction and the Built Environment Pearson BTEC International Level 3 Diploma in Civil Engineering Pearson BTEC International Level 3 Extended Diploma in Construction and the Civil Engineering
Unit number and title	Unit 13: Site Engineering for Construction
Learning aim(s) (For NQF only)	Learning Aim A: Undertake the setting out of construction work on plan.
Assignment title	Setting out of a rectangular building structure.
Assessor	
Issue date	
Hand in deadline	

Vocational Scenario or Context	You are employed as a trainee site engineer with a medium sized construction company. Your company is involved in a range of work that requires different surveying setting out methods and techniques to be used. Each method of setting out requires specific equipment and procedures to be followed. Your manager would like you to research the equipment to set out a rectangular building, the setting out process, the information that is recorded/needed, consider the sources of errors which could occur and any checks that could be undertaken to reduce any errors. You are required to perform a practical demonstration of how to set out a rectangular building.
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Task 1	You have been asked to undertake the practical setting out of a rectangular building, including its centre line and external and internal faces of an enclosing wall. To do this: • Research setting out terminology and the process to set out a rectangular building. • Research the setting out tools and equipment to be selected and used to set out the building. • Research the techniques used to operate of the equipment accurately. • Understand the need reduce errors in setting out the rectangular building and to undertake check
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	calculations and measurements on site to confirm setting out accuracy. • Interpret drawing information to set out a rectangular building • Perform a practical demonstration of how to set out accurately a rectangular building including the establishment of profile boards or rails and the establishment of three grid lines to a given tolerance. You then need to: Produce a written report that appraises the process to establish for line, level and that the building/corners are suitably square. Your report should include: - Consideration of all aspects of the method and technologies underpinning linear, levelling and angular measurement, their relative benefits and drawbacks and the impact of errors. - Complete a practical demonstration of your ability to set out a rectangular building from building information provided by your tutor from a suitable building plan.
Checklist of evidence required	Evidence must include: - A written report based on the method and technologies underpinning linear, levelling and angular measurement used to set out the rectangular building, their relative benefits and drawbacks and the impact of errors. The report should justify the relevancy of the instruments being used. - An assessor observation record to confirm you have independently completed the setting out task to a suitable degree of accuracy. This should be supported with photographic or video evidence.
Criteria covered by this task:	
Unit/Criteria reference	To achieve the criteria you must show that you are able to:
11/A.D1	Justify the selection of setting-out tools, equipment and processes for the accurate setting out of a given structure.
11/A.M1	Discuss the selection of setting-out tools, equipment and processes for the accurate setting out of a given structure.
11/A.P2	Perform setting out a structure to define the centre line, and the external and internal faces of the enclosing wall to a given tolerance.
11/A.P1	Explain the setting-out procedures using traditional tools, equipment and processes to a given level of accuracy.
Sources of information to support you with this Assignment	Textbooks Irvine, W. & Maclellan F 2006. Surveying for Construction (5th edition) McGraw Hill, Uren J & Price WF 2010 Surveying for Engineers (5th Edition) Palgrave Macmillan Bannister, Raymond & Baker 1998. Surveying (7th edition).



	Longman, Websites N/A
Other assessment materials attached to this Assignment Brief	N/A